

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1 to 17. (Canceled)

18. (Previously Presented) A method for the wavelength tuning of an optoelectronic component array, the optoelectronic component array including at least two optoelectronic components, the method comprising:

comparing a respective measured wavelength of each of the at least two optoelectronic components with a respective desired characteristic wavelength so as to determine a respective wavelength deviation for each of the at least two optoelectronic components, the respective wavelength deviation being the difference between the respective measured wavelength and the respective desired characteristic wavelength of each optoelectronic component; and

selectively setting a respective resistance value of a respective resistor arrangement connected between each of the at least two optoelectronic components and a respective resistance heater associated with each of the at least two optoelectronic components so as to achieve a respective thermal change of the respective resistance heater for setting the respective desired characteristic wavelength of each of the at least two optoelectronic components.

19. (Previously Presented) The method as recited in claim 18 wherein the selectively setting is performed using circuitry.

20. (Previously Presented) The method as recited in claim 18 wherein the selectively setting is performed by changing a respective material of a respective resistor arrangement.

21. (Previously Presented) The method as recited in claim 20 wherein the changing a respective material of the respective resistor arrangement is performed by removing or applying the respective material.

22. (Previously Presented) The method as recited in claim 18 wherein the selectively setting is performed using laser ablation.

23. (Previously Presented) The method as recited in claim 18 wherein the selectively setting is performed using heat treatment.

24. (Previously Presented) The method as recited in claim 18 wherein the selectively setting is performed using at least one of a chemical and an electrochemical treatment.

25. (Previously Presented) The method as recited in claim 18 wherein the selectively setting is performed using at least one of particle implantation, electromagnetic radiation and particle radiation.

26. (Previously Presented) The method as recited in claim 18 wherein the selectively setting is performed using an electrical signal.

27. (Previously Presented) The method as recited in claim 18 wherein the method is performed at regular intervals.

28. (Previously Presented) A device for the wavelength tuning of an optoelectronic component array having at least two optoelectronic components, the device comprising:

- a respective at least one resistance heater associated with each of the at least two optoelectronic components for setting a respective characteristic wavelength of the respective optoelectronic component;
- a common voltage or current source; and
- a respective resistor arrangement connected between each respective at least one resistance heater and the common voltage or current source, a respective total resistance of each respective resistor arrangement being variable so as to allow for wavelength tuning, the wavelength tuning being effected by changing the respective total resistance.

29. (Previously Presented) The device as recited in claim 28 wherein each respective resistor arrangement includes respective individual resistors disposed in a respective resistor array.

30. (Previously Presented) The device as recited in claim 28 wherein respective resistors of each respective resistor arrangement are connected between a respective contact fields disposed in rows, the respective resistors being arranged in a fixed order with regard to their respective resistance values, a respective total resistance of each respective resistor arrangement being achieved using the respective contact fields.

31. (Previously Presented) The device as recited in claim 30 wherein the respective total resistance of each respective resistor arrangement is achieved using bond connections.

32. (Previously Presented) The device as recited in claim 29 wherein respective resistors of each respective resistor arrangement are connected between respective contact fields disposed in respective rows, a respective resistors being arranged in a fixed order with regard to their respective resistance values, the respective total resistance of each respective resistor arrangement being achieved using the respective contact fields, and wherein the respective contact fields include a plurality of bond pads for attachment of electric leads.

33. (Previously Presented) The device as recited in claim 28 wherein respective resistors of the respective resistor arrangements include at least one of metal, non-metal, semiconductor material, liquid, gel, ceramic, oxide, metal-matrix compound, liquid crystals and polymers.

34. (Previously Presented) The device as recited in claim 28 wherein the at least two optoelectronic components are disposed on a first body and at least a portion of the respective resistor arrangements are disposed on at least one second body.

35. (Previously Presented) The device as recited in claim 34 wherein the first body includes semiconductor materials and the at least one second body includes an insulator.

36. (Previously Presented) The device as recited in claim 36 wherein each of the at least two optoelectronic components includes at least one of a solid-state laser, an optical amplifier, a filter, a wavelength multiplexer and a waveguide.